BIOLOGICAL STATUS OF *ARGYTHAMNIA LAEVIS* (EUPHORBIACEAE)

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Argythamnia laevis (A. Gray) Muell., a taxon of Trans-Pecos Texas and closely adjacent southeastern New Mexico, was first described in 1859 as *Aphora laevis* A. Gray ex Torrey. It was distinguished from its closest congener, *Argythamnia humilis* (Engelm. & A. Gray) Muell., by its glabrous condition. Other than its striking glabrosity, including reproductive organs, *A. laevis* is seemingly identical to *A. humilis*. Shinners (1956) reduced *A. laevis* to varietal rank under the latter with the observation: "Rather rare in the Trans-Pecos (specimens seen from Jeff Davis and Reeves counties); var. *humilis* is common and widespread on prairies of central and western Texas." The treatment of Shinners has been followed by most subsequent workers (eg., Johnston & Warnock 1962; Correll & Johnston 1970).

I became interested in the biological status of *A. laevis* (= *Ditaxis laevis* [A. Gray ex Torrey] Heller) in my preparation of a taxonomic account of *Ditaxis* for Trans-Pecos Texas. Johnston and Warnock (1962) provided a systematic account of the varieties concerned. In this they mapped the two as essentially sympatric but not intergrading or co-occurring in a given population, this suggesting either specific status for *A. laevis*, or perhaps mere recognition of the latter as a form. Discovery of the two taxa within a single population should prove helpful in resolving this issue. To this end I began to look intensively at any given population of *A. humilis* in hopes of finding forms referable to *A. laevis*. Among five or more populations from the trans-Pecos and peripheral areas, only two such populations were found, as indicated below and shown in Figure 1.

TEXAS. Andrews Co.: northeast shoreline and along roadside of Shafter Lake, 12 May 2000, *B. L. & Matt Turner 20-263A* (TEX). **Gaines Co.:** 3.8 mi S of Seminole along Farm Rd 181, 12 May 2000, *B. L. & Matt Turner 20-246* (TEX).

In the two mixed populations, pubescent forms (var. *humilis*) were clearly much more common than the glabrous forms (var. *laevis*). Further, I never encountered pure populations of the glabrous form. Because of this I conclude that "var. *laevis*" is but a sporadically occurring form of *A. humilis*, undeserving of varietal rank as this is conceived by Turner and Nesom (2000) and perhaps others. Better proof might be obtained through sowing field-gathered seeds of "var. *laevis*" so as to show that both pubescent and glabrous forms might arise from the seedlings concerned, the glabrous condition apparently due to the expression

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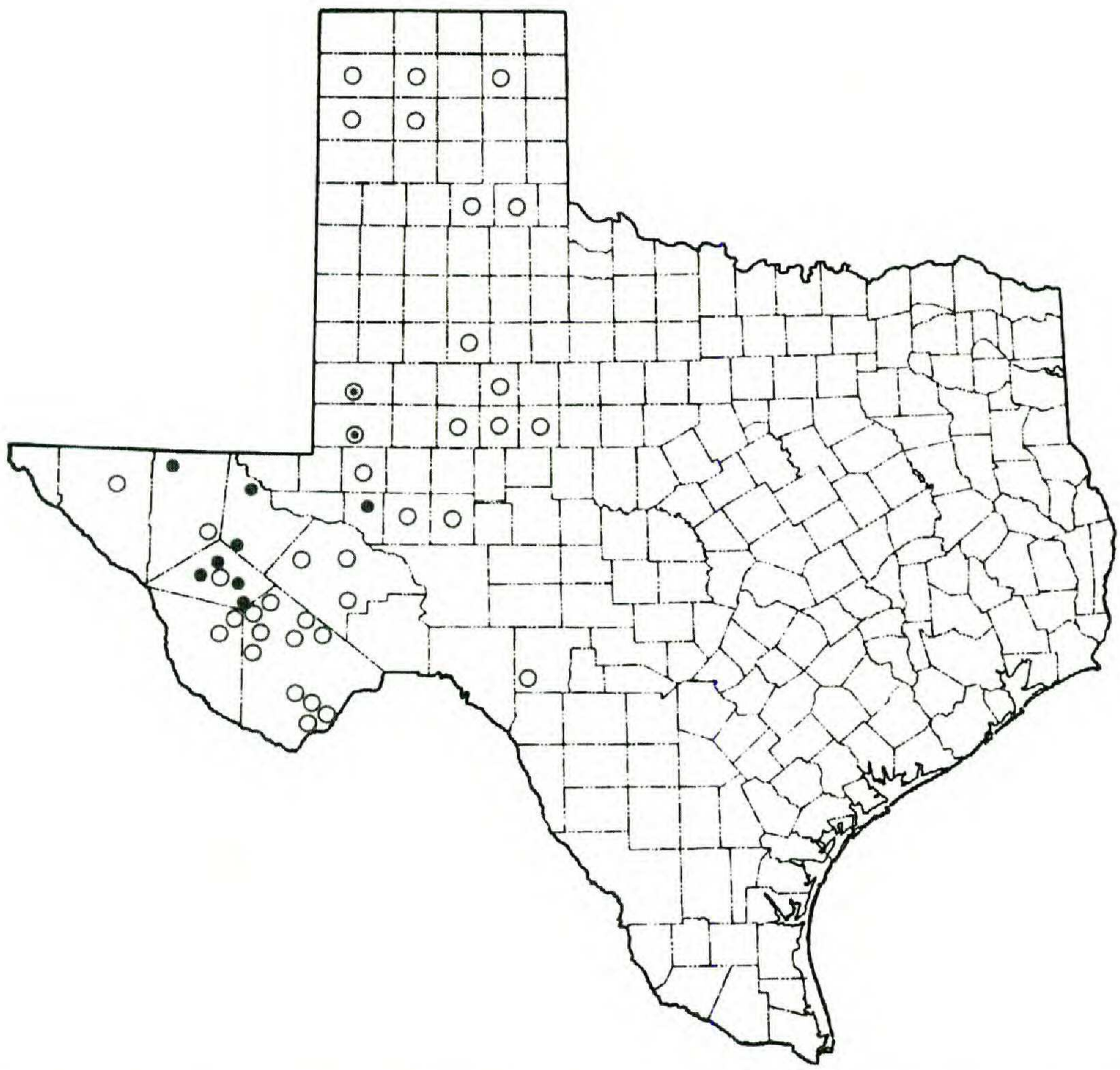

Fig. 1. Distribution of *Ditaxis humilis* in western Texas: Pubescent forms (○), glabrous forms (●), mixed populations (⊙).

of only one or a few genes, but the field observations provided here seemed sufficient to establish that likelihood.

Because of the nomenclatural history and striking appearance of the taxon concerned I deem it appropriate to reduce *Argythamnia laevis* to the category of forma, as follows:

Ditaxis humilis forma **laevis** (A. Gray ex Torrey) B.L. Turner, forma nova. Basionym: *Aphora laevis* A. Gray ex Torrey, Bot. Mexican Bound Surv. 196. 1859.

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